

ON THE TREATMENT OF VESICO-VAGINAL
FISTULA BY OPERATION FROM WITHIN
THE BLADDER.

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IN November, 1890, a paper was reported in the *Lancet*, by the late Mr. McGill, of Leeds, in which he advocated the closure of bad vesico-vaginal fistulæ by operating within the bladder through a suprapubic opening, and in which two successful cases were also recorded. Trendelenburg also stated at the Leeds meeting of the British Medical Association, in August, 1889, that he had successfully adopted this route in one case.

A patient happened to be in the Leicester Infirmary with vesical fistula just before the publication of Mr. McGill's paper, and the question of opening the bladder and closing the fistula from within presented itself to me; however, an attempt was first made to cure it by the vaginal route, and although this was only partially successful, the patient left the hospital and did not return for three years; on this occasion the fistula was closed by the suprapubic operation, and another successful case has recently occurred.

First as regards the frequency of these cases. It is, I think, probable that vesico-vaginal fistula following labor is a less frequent affection now than formerly. It is essentially a disease of the poor, and owing, probably, to increased knowledge and skill on the part of medical men, women are not now left to struggle through a protracted third stage of labor, and so are relieved from the extensive sloughing and pressure effects which formerly occurred.

There will, however, doubtless, always be a few cases of this most distressing malady, and such cases are, and have been, the subjects of probably more unsuccessful surgical operations than, perhaps, the sufferers from any other surgical affection ; this being so, any improvement in the manner of operation, which leads to a more certain closure, is a matter of importance.

As regards the kind of cases most suitable for treatment by the new route, those are especially so in which extensive cicatricial contraction has occurred ; in such cases the vaginal roof is often tightly stretched across the pelvis, and the neck of the uterus cannot be drawn down ; if, under these conditions, the fistula be extensive and situated high up near the uterus, considerable advantage is obtained by choosing the new method.

As regards the operation itself. The bladder may first be injected, the finger of an assistant meanwhile blocking the fistulous opening ; if this is impossible, it may be opened by a vertical incision above the pubes on a sound, the peritoneum being carefully drawn out of the way.

Mr. McGill adopted in both his cases a transverse incision through the skin and recti, and also into the bladder ; but I have found that the vertical incision gives plenty of room and the recti can be partially divided transversely, if necessary, and then drawn outward. The walls of the bladder are now held apart and the cavity opened out by three long, curved metal retractors, and by these means and the upward pressure of the bladder by the assistant's finger in the vagina the fistula and field of operation can be brought well within reach, the thin cicatricial junction of the two mucous membranes is now incised all round and two flaps of vesical mucous membrane are raised, one on either side the rent, with their edges turned inward towards the bladder, and are sutured with catgut on a doubly-curved needle such as is used for cleft-palate suture ; at this stage also the rectangular knives and long forceps are also useful, and care must be taken at the angles to extend the separation of the mucous membrane beyond the actual limits of the fistula.

A few silver-wire sutures are afterwards used to draw the edges of the vaginal mucous membrane together, these having

been already freshened on their vesical surface by the operation within the bladder.

It is very important in the after-treatment to avoid the occurrence of cystitis, and I have found continuous irrigation of the bladder, day and night, with warm boracic solution very useful. It is carried out as follows :

After the closure of the fistula, a piece of india-rubber tubing, or a large Jacques catheter, is passed through the urethra and drawn out above through the suprapubic wound, and to the upper end of this is attached the nozzle of the irrigator tube, the tube within the bladder has a few lateral holes, cut in that part of its course which lies within the cavity of the viscus, and these allow of a free current of lotion both inward and outward and the cavity can be distended and flushed at will by compressing the tube beyond the urethra ; the rate of flow can be easily regulated by pressure-clamps and the irrigator kept constantly warm by a cotton-wool jacket. This irrigation can be continued as long as necessary, and the tube gradually dispensed with, by first drawing it within the bladder and allowing the suprapubic opening to close, and then removing it entirely.

The portion of tubing projecting from the urethra should be sufficiently long to reach a receptacle in order to avoid discomfort.

In addition, I have found this continuous irrigation very useful in other cases of suprapubic cystotomy, in which the bladder has been drained by a tube passed through the membranous urethra,¹ the continuous current of the acid lotion preventing the deposition of phosphates in and around the wound.

There are, I think, several reasons why the suprapubic method offers a surer means of closing the fistulous opening in bad cases. First, because the vesical flaps when raised and turned inward have their surfaces opposed to the direction of the current of urine flowing through the fistula, and are thus more tightly closed by its pressure, unlike the flaps formed by vaginal mucous membrane ; the vesical flap is, in fact, the valu-

¹ See paper in *Lancet*, August 10, 1889.

able agent in closing the opening, and it is in proportion to the care taken to thoroughly free and separate these that success depends, even in operating through the vagina. Moreover, in most cases of extensive loss of substance, the vesical mucous membrane has grown over the edge of the fistula, projecting into the vagina, and is more voluminous than the vaginal membrane.

Secondly, the suprapubic opening, especially where combined with the urethral drain and constant irrigation, insures complete drainage,—that is, the absence of all tension within the bladder. This is a most important factor, and is in itself sufficient in some cases to bring about cure without further operation.

Such an opening is a far more effectual form of drainage than the introduction of a self-retaining catheter only, which is almost sure to induce cystitis.

In conclusion, I would suggest that further trial should be given to the suprapubic route, in the bad cases of a malady which is most distressing to the patient, and often a source of anxiety to the surgeon.

The following cases were operated on by this method:

M. P., a multipara, aged forty, has a small fistula high up, of many years' duration.

One previous attempt at closure by vaginal operation with partial success. November, 1890.

Closed at one operation by the suprapubic method. May, 1893.

S. M., multipara, aged thirty-eight, has two fistulæ, one very extensive and high up, and one smaller opening communicating with the urethra at its vesical end.

One unsuccessful attempt by the vaginal route, the bladder was then opened, and the fistula closed from within, this was almost entirely successful, a small sinus just admitting a probe remaining, which was closed from below. December, 1893.

The urethral fistula was also closed from below, while the bladder was still drained by the suprapubic opening.